REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 1-18 and 20-22 remain pending. In claims 1 and 22 the location of the surface layer has been clarified, as supported for example by the illustration of the surface layer 1 in Fig. 1F.

A new title has been provided for the application as requested. Applicants courteously invite the Examiner's suggestion for a title if the new title is not considered suitable.

Claim 5 has been amended as requested. The objection to that claim should be withdrawn.

Claims 1-18 and 20-22 have been rejected as obvious over Bailey in view of Hedblom. Applicants respectfully contend that the rejection misinterprets both references and traverse the rejection.

The rejection refers to Fig. 7, Curve B to support the position that Bailey shows a first glass sphere group showing reflective performance at a small observation angle and up to a large incidence angle, and a second glass sphere group showing reflective performance at a larger observation angle and up to a large incidence angle. Applicants respectfully disagree.

As seen at Col. 6, lines 1-18 of the reference, retroreflectivity was measured at a small incidence angle of 4 degrees, an incidence angle of 0 degrees being undesirable due to specular reflection from the face of the sheeting, and a divergence (i.e. observation) angle of 0.2 degree. The retroluminometer then was swung away from perpendicular, thereby changing the incidence angle, but not changing the observation angle. Col. 6, lines 19-25 make it clear that the reference is concerned with the retroreflective performance relative to the incident angle, and makes no reference to the properties concerning the observation angle. The discussion of Fig. 7 also confirms this. Col. 4, lines 10-13 and col. 10, lines 34-39 specifically state that the graphs of Fig. 7 show retroreflective brightness versus angle of incidence, with the observation angle being constant. The curves are for a product of the reference and a prior art product, each viewed in a crossweb direction and downweb direction. Therefore, Fig. 7 does not support the contention that Bailey teaches a first glass sphere group showing reflective performance at a small observation angle and up to a large incidence angle, and a second glass sphere group showing reflective performance at a larger observation angle and up to a large incidence angle as required by claims 1 and 22.

Bailey discloses enclosed lens type retroreflective sheeting products provided with a second transparent polymer layer on the glass beads. This is intended to provide products having improved "angularity" (Col. 1, line 61-Col. 2, line 30), which, as discussed above, relates to improved retroreflection with varying angles of incidence. Col. 2, lines 42-62 of the reference state that the improved performance is believed to result from the spacing layer conforming in substantially uniform thickness around a large portion of the back surface of the microspheres. Thus, it can be seen that Bailey provides a glass sphere group with a focusing layer formed at a focus formation position, which enjoys reflective performance at a small observation angle and up to a large incidence angle. This corresponds only to the first sphere group of claims 1 and 22. Bailey does not discuss making a focusing layer thinner than the focus formation position for any of the spheres and thus, contrary to the assertion of the rejection, in fact does not provide a second glass sphere group that provides reflective performance at a larger observation angle and up to a large incidence angle. Therefore, in addition to the reference's failure to disclose the positioning of the spheres at different locations in the thickness direction that was recognized in the rejection, Bailey does not provide the teachings for which it is cited in the rejection. The findings concerning Bailey recited in the rejection are not supported by the reference itself and the rejection should be withdrawn.

Applicants respectfully contend that the rejection misinterprets Hedblom as well. Initially, the rejection cites Col. 10, line 38-41 as teaching that glass spheres should be disposed at random locations in the thickness direction of the focusing layer. However, Col. 10, lines 38-41 state that "skid-resistant particles are randomly sprinkled ...". Therefore this portion of the reference has nothing to do with the location of the glass spheres and certainly does not teach anything about the position of the glass spheres in the thickness direction of the focusing layer.

The rejection contends that Bailey and Hedblom are related as retro-reflector bead systems. Applicants respectfully suggest that this is an overbroad generalization that overlooks basic differences between the references. As noted above, Bailey is directed to an enclosed lens system, as is the invention of claims 1 and 22. On the other hand, Hedblom is directed to an exposed lens retroreflective sheet. See line 4 of the Abstract, Col. 2, lines 62-64, Col. 4, lines 6-10, etc. In the enclosed lens system, a surface layer is present over the glass spheres. In the exposed lens system, the glass spheres are exposed to the outside. The significance of this is illustrated by the Hedblom reference itself. In an exposed lens system, the surface of the glass

spheres will become wet when it rains, and this affects the reflection performance. Hedblom specifically is concerned with improving the reflection performance of the exposed lens system in wet conditions. See Col. 1, lines 21-34, Col. 2, lines 47-51 and 54-58, Col. 6, lines 39-44, etc. In an enclosed lens system, the glass spheres are not exposed to the atmosphere. Even in wet conditions, it is the surface layer that becomes wet, not the glass spheres, and the reflective performance of the glass spheres is not affected by the wet conditions. Thus, the teachings of Hedblom on how to improve the performance of the exposed lens system product in wet conditions have no relevance to an enclosed lens system of Bailey and claims 1 and 22.

This position is not contradicted by the teachings in Col. 2, lines 65-67, cited in the rejection as evidence of Hedblom's recognition that additional layers may be present. This portion of the reference may indeed disclose that there may be multiple layers, but this is referring to the structure that supports the exposed glass spheres. Note the specific reference to one or more "top layers" in Col. 2, lines 65-67; as seen in Fig. 2 and Col. 3, line 34, the "top layer" is part of the structure by which the glass spheres, spacing layer and reflective layer can be adhered to a roadway or the like. Therefore, Hedblom in no way contemplates enclosing the glass spheres.

Moreover, even if Hedblom were to be considered applicable to Bailey, the invention of claims 1 and 22 would not be achieved by combining the references if the teachings of Hedblom are considered properly as a whole. Hedblom teaches that to improve the optical performance in wet conditions, the spacing layer should be made thicker. See Col. 6, lines 39-44. Thus, in the embodiment of Fig. 4 of Hedblom, the focus layer thickness appropriate for dry conditions is made thicker for some spheres in order to improve the reflective performance for those spheres in wet conditions. This thickening of the focus layer teaches directly away from the requirement of claims 1 and 22 that the focusing layer for the second glass sphere group is made thinner at the glass spheres than a focus formation position for the glass spheres.

As was the case with Bailey, the rejection's findings concerning Hedblom also are flawed. Therefore the rejection should be withdrawn.

As the rejection is manifestly deficient as to independent claims 1 and 22, the dependent claims need not be addressed separately at this stage. In so doing, Applicants are not conceding the correctness of the rejection for those claims, nor the correctness of any "notice" that has been

taken relative to those claims, and reserve the right to raise these issues if appropriate in the future.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

Respectfully submitted,

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Date: October 17, 2008

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